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CUL2 / Cullin 2 Antibody (aa696-745)

Rabbit Polyclonal Antibody
Catalog # ALS14746

Specification

CUL2 / Cullin 2 Antibody (aa696-745) - Product Information

Application	**IF, WB, IHC**
Primary Accession	Q13617
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**87kDa KDa**

CUL2 / Cullin 2 Antibody (aa696-745) - Additional Information

Gene ID 8453

Other Names
Cullin-2, CUL-2, CUL2

Target/Specificity
Cullin 2 Antibody detects endogenous levels of total Cullin 2 protein.

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions
CUL2 / Cullin 2 Antibody (aa696-745) is for research use only and not for use in diagnostic or therapeutic procedures.

CUL2 / Cullin 2 Antibody (aa696-745) - Protein Information

Name CUL2 (HGNC:2552)

Function
Core component of multiple cullin-RING-based ECS (ElonginB/C- CUL2/5-SOCS-box protein) E3 ubiquitin-protein ligase complexes, which mediate the ubiquitination of target proteins (PubMed:11384984, PubMed:26138980, PubMed:29775578, PubMed:29779948, PubMed:38326650). CUL2 serves as a rigid scaffold in the complex and may contribute to catalysis through positioning of the substrate and the E2 ubiquitin- conjugating enzyme (PubMed:10973499, PubMed:11384984, PubMed:12609982, PubMed:24076655, PubMed:<a

href="http://www.uniprot.org/citations/9122164" target="_blank">9122164, PubMed:38326650). The E3 ubiquitin- protein ligase activity of the complex is dependent on the neddylation of the cullin subunit and is inhibited by the association of the deneddylated cullin subunit with TIP120A/CAND1 (PubMed:12609982, PubMed:24076655, PubMed:27565346, PubMed:38326650). The functional specificity of the ECS complex depends on the substrate recognition component (PubMed:10973499, PubMed:26138980, PubMed:29775578, PubMed:29779948, PubMed:9122164, PubMed:38326650). ECS(VHL) mediates the ubiquitination of hypoxia-inducible factor (HIF) (PubMed:10973499, PubMed:9122164). A number of ECS complexes (containing either KLHDC2, KLHDC3, KLHDC10, APPBP2, FEM1A, FEM1B or FEM1C as substrate-recognition component) are part of the DesCEND (destruction via C-end degrons) pathway, which recognizes a C-degron located at the extreme C terminus of target proteins, leading to their ubiquitination and degradation (PubMed:26138980, PubMed:29775578, PubMed:29779948). ECS complexes and ARIH1 collaborate in tandem to mediate ubiquitination of target proteins (PubMed:27565346). ECS(LRR1) ubiquitinates MCM7 and promotes CMG replisome disassembly by VCP and chromatin extraction during S- phase (By similarity).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q9D4H8}.

Volume
50 µl

CUL2 / Cullin 2 Antibody (aa696-745) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CUL2 / Cullin 2 Antibody (aa696-745) - Images

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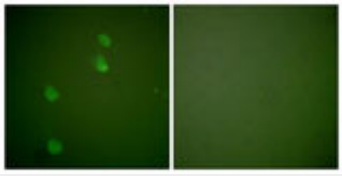
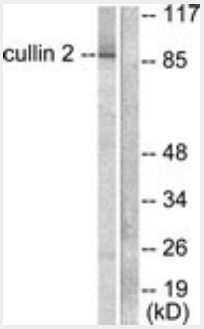
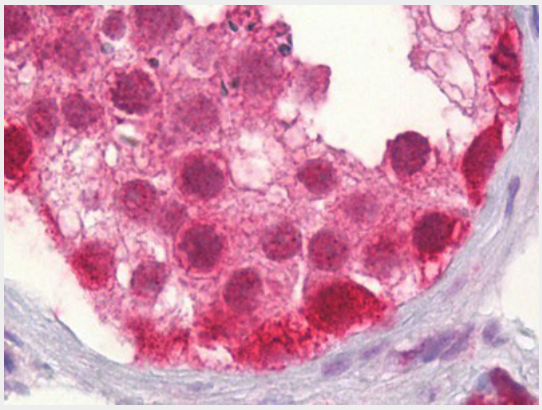


Immunofluorescence of NIH-3T3 cells, using Cullin 2 Antibody.



Western blot of extracts from LOVO cells, using Cullin 2 Antibody.



Anti-CUL2 / Cullin 2 antibody IHC of human testis.

CUL2 / Cullin 2 Antibody (aa696-745) - Background

Core component of multiple cullin-RING-based ECS (ElonginB/C-CUL2/5-SOCS-box protein) E3 ubiquitin-protein ligase complexes, which mediate the ubiquitination of target proteins. May serve as a rigid scaffold in the complex and may contribute to catalysis through positioning of the substrate and the ubiquitin- conjugating enzyme. The E3 ubiquitin-protein ligase activity of the complex is dependent on the neddylation of the cullin subunit and is inhibited by the association of the deneddylated cullin subunit with TIP120A/CAND1 (By similarity). The functional specificity of the ECS complex depends on the substrate recognition component. ECS(VHL) mediates the ubiquitination of hypoxia-inducible factor (HIF).

CUL2 / Cullin 2 Antibody (aa696-745) - References

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Wada H.,et al.Biochem. Biophys. Res. Commun. 257:100-105(1999).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Deloukas P.,et al.Nature 429:375-381(2004).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.